



Serial No.: 09/662,077
Docket No.: 8X8S.243PA

1/6

FIG.1

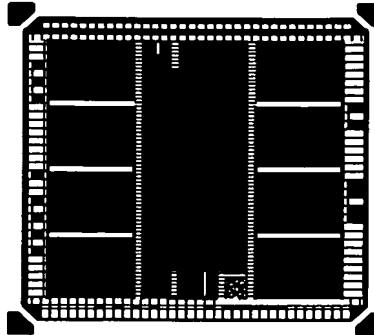
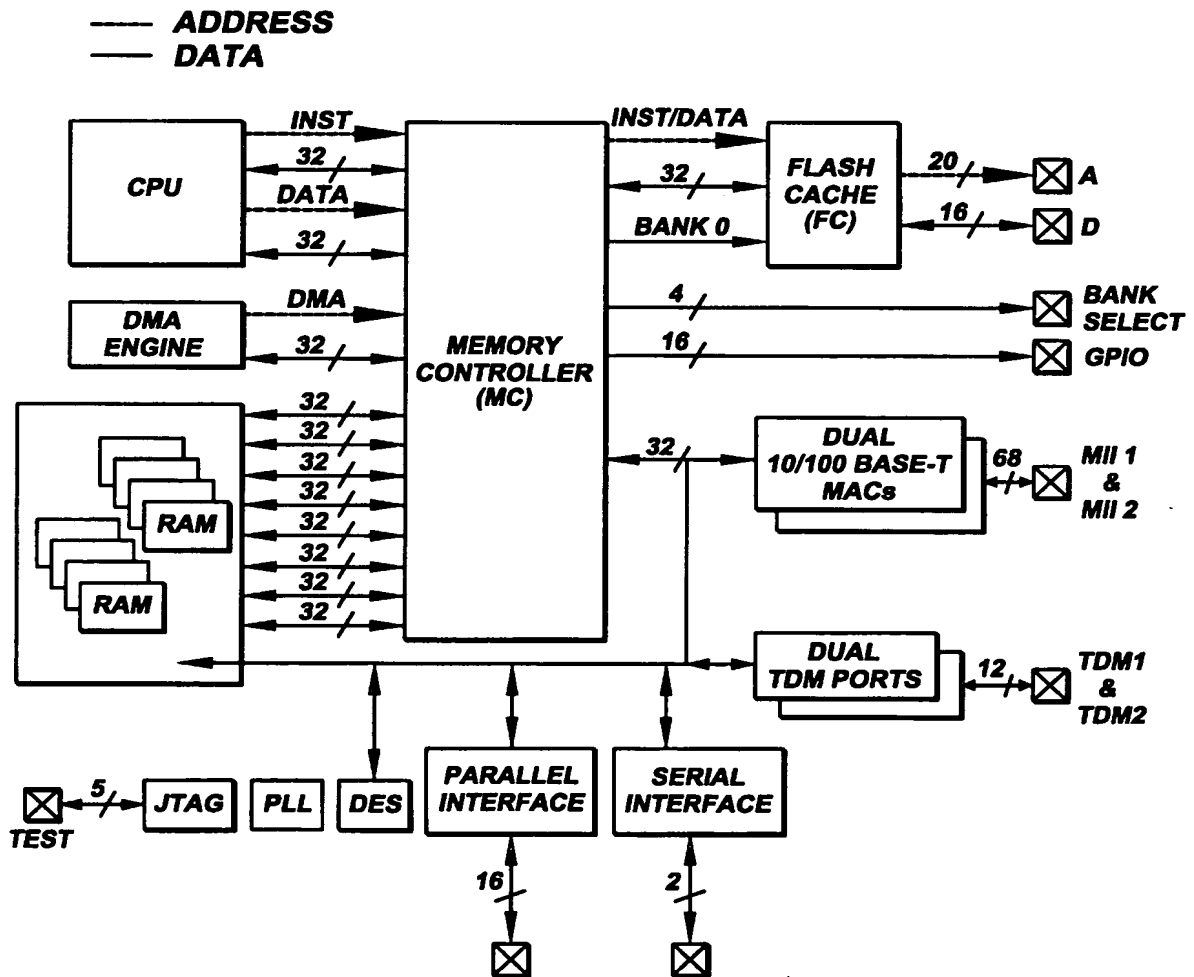


FIG.2

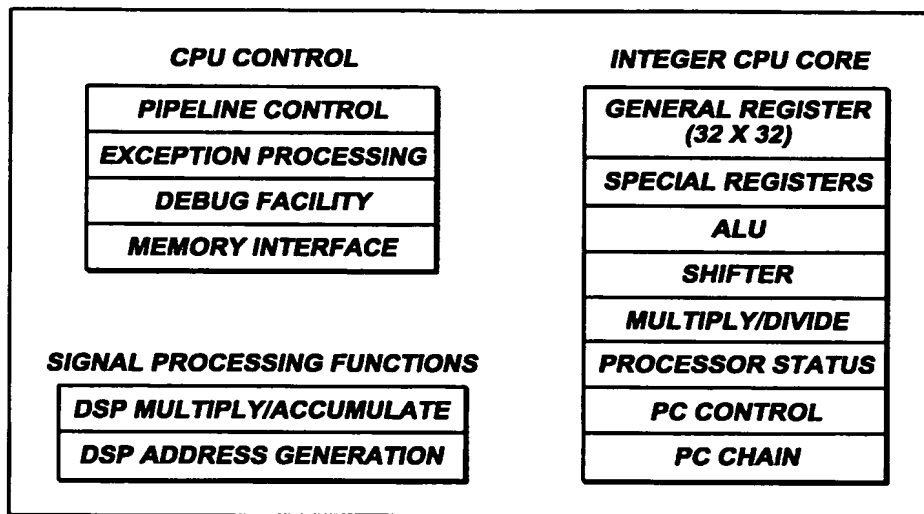


BEST AVAILABLE COPY



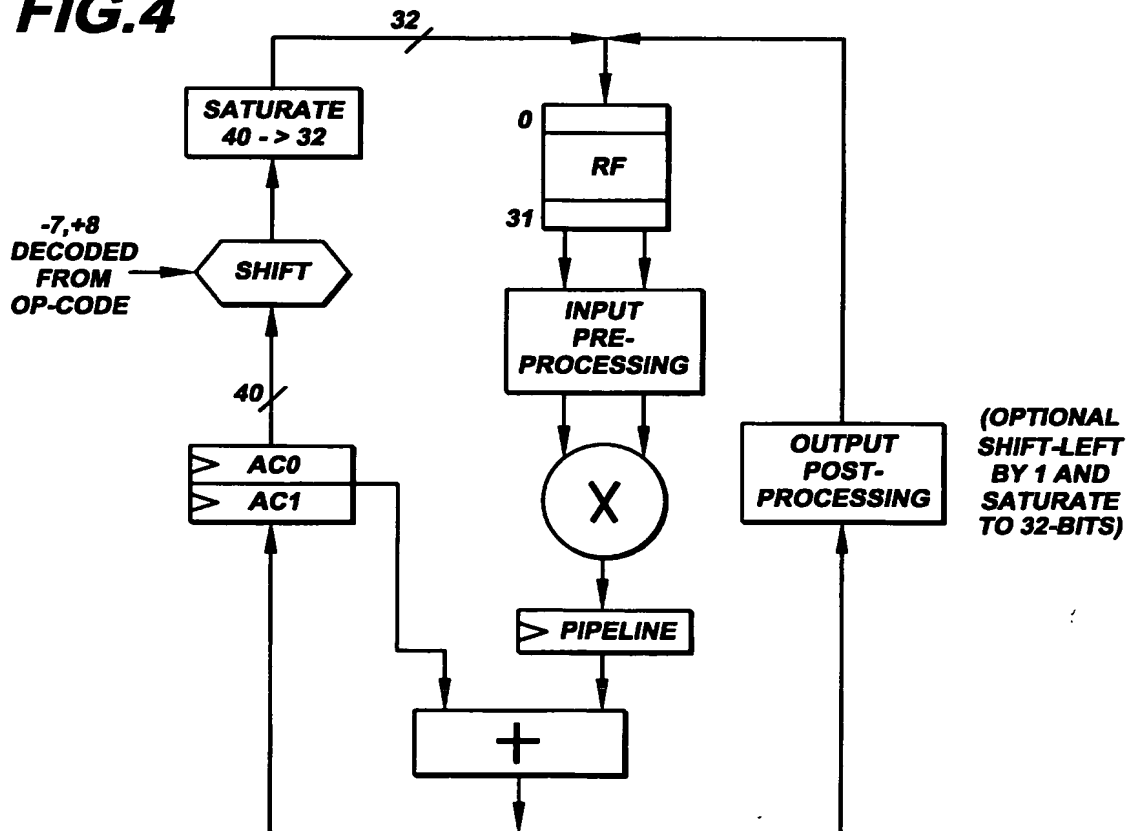
FIG.3

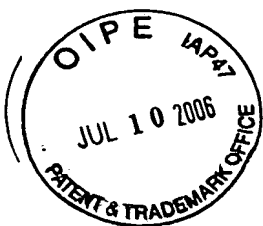
2/6



PIPELINE: IF RF EXE MEM WB
IF: INSTRUCTION FETCH, RF: REGISTER FETCH, EXE: EXECUTE, MEM: MEMORY ACCESS, WB: WRITE BACK

FIG.4





Serial No.: 09/662,077
Docket No.: 8X8S.243PA

FIG.5

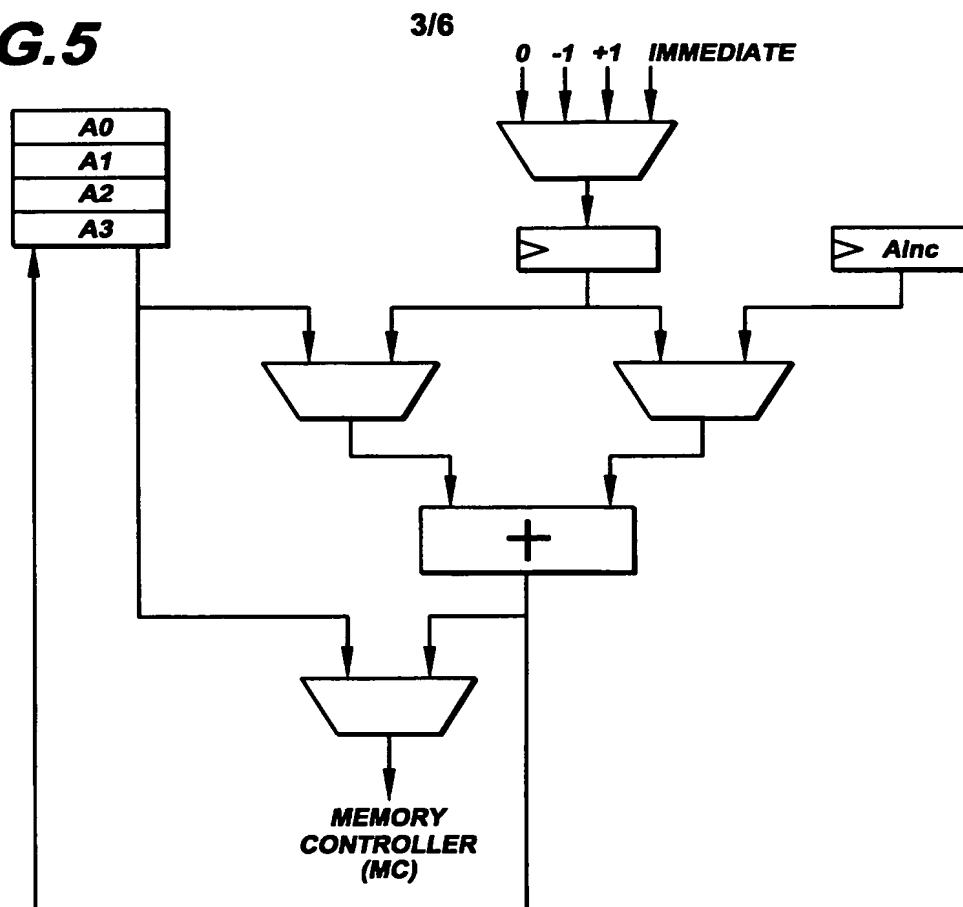


FIG.6

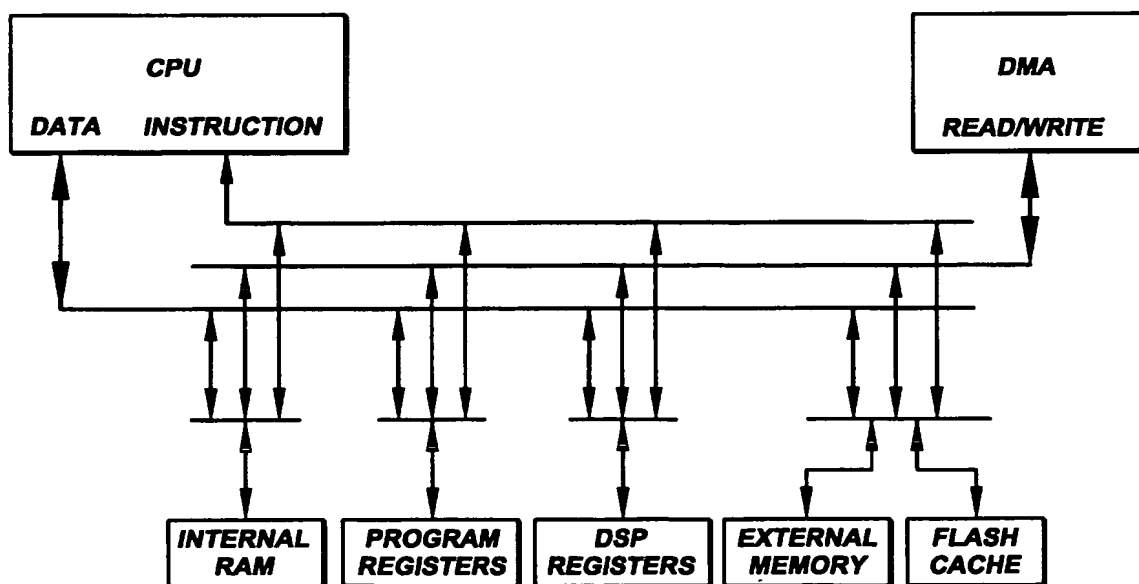
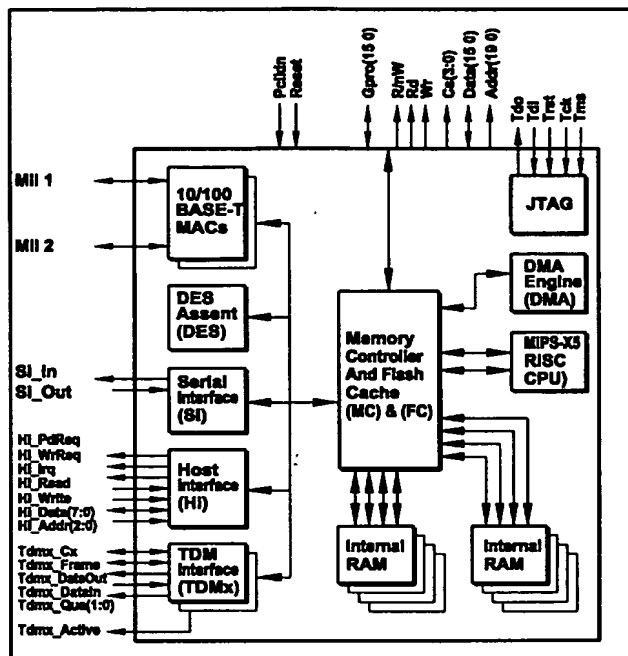




FIG.7



- **MIPS-X3 Combined RISC and DSP core (200+ DSP MIPS).**
- **256KBytes on chip RAM, 8 way interleaved, with single cycle access. 64 Bytes of boot ROM.**
- **Two 10/100 Base - T Ethernet MACs with MII interface.**
- **8 KByte, 2 way set associative cache for external flash program memory.**
- **Glueless support of SLIC/SLAC codecs and character LCD displays via TDM & GPIO ports.**
- **GCC based compiler support with assembler and debugger.**
- **Low power. 1.8V +/- 10% core voltage, 3.3V +/- 10% I/O voltage.**
- **176 TQFP package/JTAG.**

FIG.8

- **Software Development Tools**
 - **Dynamic linker, boot mechanism, compiler test suite, gdb/debug**
- **POSIX Operating System**
 - **Interrupt vector, context switching method, scheduling, semaphores, CLIB/printf**
- **Device Drivers**
 - **MAC, TDM, Host, UART**
- **Audio Libraries**
 - **G.711, G.723, G.729A, G.729E, Acoustic Echo Cancellation**
- **Managers**
 - **Audio, MAC/Network**
- **Applications**
 - **Audio loopback**
 - **MGCP/H3.23 loopback**



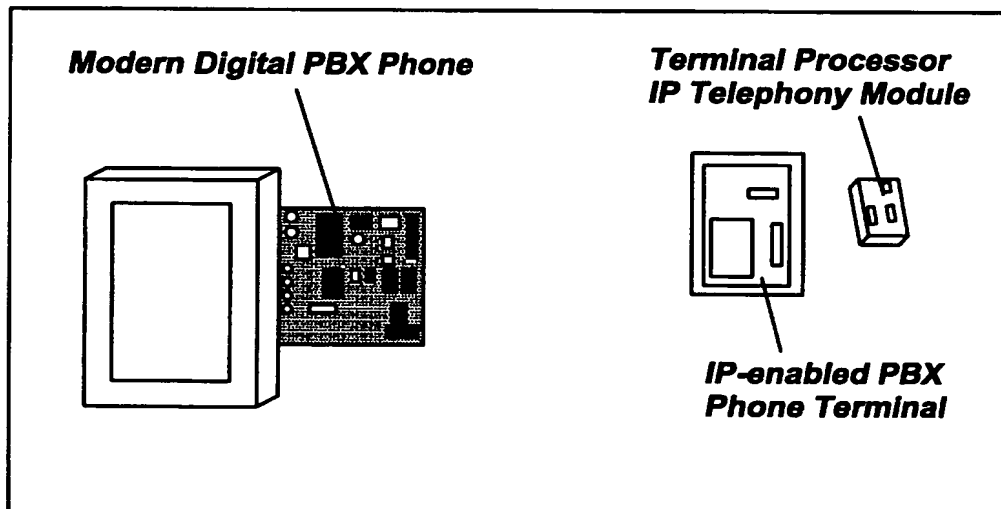
Serial No.: 09/662,077
Docket No.: 8X8S.243PA

5/6

FIG.9

- **Implementation of the POSIX operating system**
- **Full support for:**
 - **Threads (single process, multiple threads)**
 - **Scheduling (two algorithms – FIFO and round robin)**
 - **Semaphores**
 - **Mutexes**
 - **Condition Variables**
 - **Message Queues**
 - **Signal and Timers**

FIG.10



BEST AVAILABLE COPY

FIG. 11

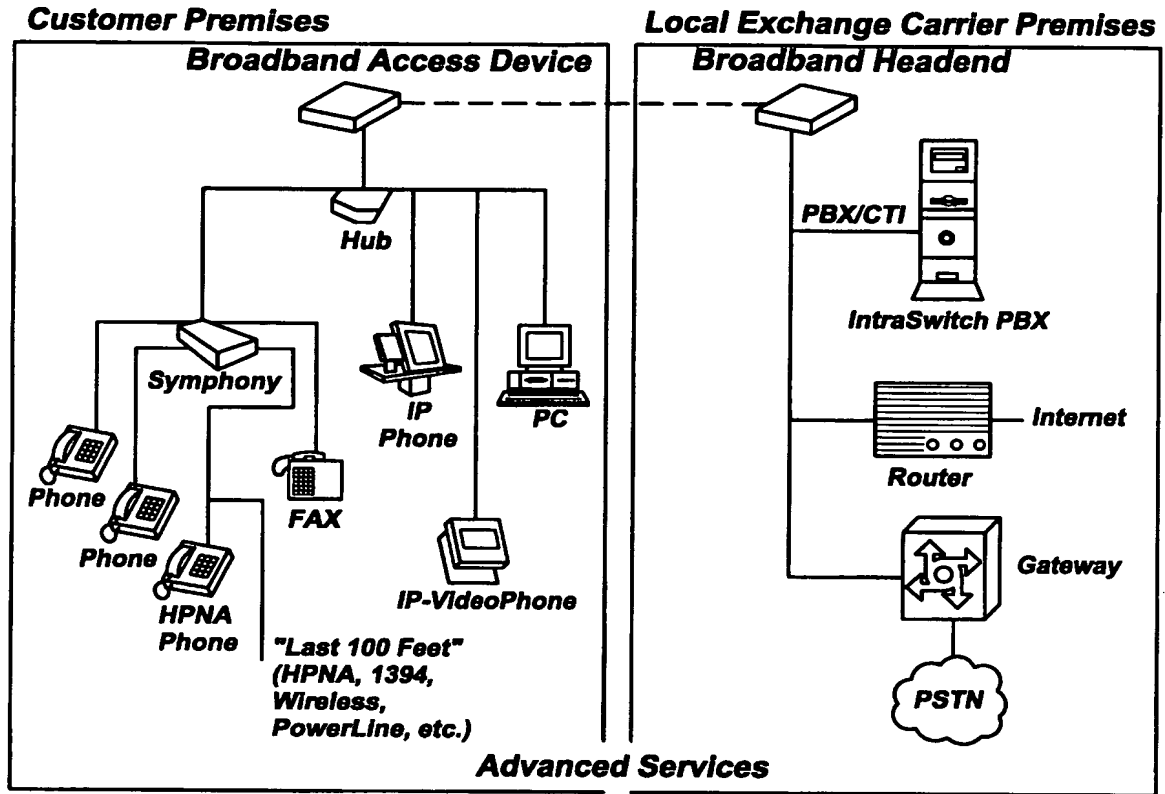


FIG. 12

